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MINNEAPOLIS, MN 55440-1022

EXAMINER

PATEL, ASHOKKUMAR B

ART UNIT	PAPER NUMBER
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2154

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/811,161

Applicant(s)

STRAHM ET AL.

Examiner

Ashok B. Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
4a) Of the above claim(s) 12-18 and 33-37 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-11, 19-32 and 38-48 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-48 are subject to examination. Claims 12-18 and 33-37 have been cancelled.

Response to Arguments

2. Applicant's arguments filed 06/21/2006 have been fully considered but they are not persuasive for the following reasons:

Applicant's argument:

"Although this passage describe connection switching as "seamless" to a user, that does not mean that the new connection uses the information exchange protocol used by the first connection with the server."

In contrast, independent claims 1, 7, 19, 23, and 28 refer to using the same information exchange protocols for a second active connection as the first connection. Accordingly, there can be no anticipation here."

"Again, Doviak does not teach that a second active connection uses information that is configured for the information exchange protocol that was established for the first connection."

"Doviak also does not teach using the same network, security, and compression protocols and parameters. Doviak does not even mention compression, and therefore cannot disclose using the same compression protocols and parameters."

Examiner's response:

Doviak teaches at col.30, line 35-38, "An exemplary application running on the mobile device 52 is a mobile remote client application which provides the remote user with the capability to send and retrieve data from a fixed database server application. "

Doviak teaches at col. 31, line 9-19, "Typically the device or Application 52 sends and receives data using a variety of protocols (e.g., Internet Protocol (IP)/transparent (via MDC 54)/ack-nack, etc.). The use of a variety of protocols provides for open transport of data throughout many networks, and in particular, networks which support open standards such as IP. However, many proprietary networks which require interface and/or protocol translation remain in use. In the Router 200 of the present embodiment, the function of interfacing with networks and protocol translation may be performed by the Network Interfaces 214A-D."

Doviak teaches at col.33, line 33-41, "The specific protocols to the above-listed networks are implemented in the Network Interfaces 214A-D. These protocols may be very different, and therefore incompatible with each other. Additionally, a translation device may be provided in each Network Interface 214 to translate between IP and the particular network protocol. By providing such a translation device, the Application or Device 52 can use IP data regardless of the particular network the Application or Device 52 is actually using." Thus, Doviak teaches "a second active connection uses information that is configured for the information exchange protocol that was established for the first connection."

The applicant's usage of "wherein" in the claimed subject matter of the claims, the claim scope is not limited by claim language that suggests or makes optional but

does not require steps to be performed, or by claim language that does not limit a claim to a particular structure. Please see *Minton v. Nat'l Association of Securities Dealers, Inc.*, 336 F.3d 1373, 1381, 67 USPQ2d 1614, 1620 (Fed. Cir. 2003)), MPEP 2111

Applicant's argument: Claim 5

“ The passage refers to the "next Network," suggesting that a single connection (i.e., the connection to the "next Network") is selected as the active connection. Accordingly, this deficiency of Doviak is an additional reason why Doviak cannot anticipate claim 5.”

Examiner's response:

Doviak teaches at col. 34, line 19-26, “The Network Availability 210 (see also FIG. 30) is a function which periodically interrogates each installed Network Interface 214 in the Router 200 and may determine if the Network Interface 214 is installed; if the Network Interface 214 is properly configured and functioning properly; if the Network Interface 214 is connected to the Network, on-line, and available for sending/receiving messages; and if the Network Interface 214 is in good health.”

Doviak also teaches at col. 35, line 37-44, “The User Configuration 208 function provides the user with the capability to instruct the Router 200 how to select a particular Network. These metrics may include, but are not limited to: which Network is connected to which Router port, time of day and date, priority (switching sequence) of each Network, cost per packet of each Network, and preferred default Network.” Thus, Doviak teaches “two or more connections are selected as the active connection.”

Applicant's argument: Claim 7

“Doviak does not describe opening a second connection before evaluating the parameter to make a decision to use the second connection as the active connection.”

Examiner's response:

Doviak teaches at col. 34, line 19-26, “The Network Availability 210 (see also FIG. 30) is a function which periodically interrogates each installed Network Interface 214 in the Router 200 and may determine if the Network Interface 214 is installed; if the Network Interface 214 is properly configured and functioning properly; if the Network Interface 214 is connected to the Network, on-line, and available for sending/receiving messages; and if the Network Interface 214 is in good health.”

Doviak teaches at col. 35, line 37-44, “The User Configuration 208 function provides the user with the capability to instruct the Router 200 how to select a particular Network. These metrics may include, but are not limited to: which Network is connected to which Router port, time of day and date, priority (switching sequence) of each Network, cost per packet of each Network, and preferred default Network.”

Doviak also teaches at col. 30, line 2-7, “The Network Interface 214 provides information to the Network Availability process 210, which sends this information to the Decision process 206. The Decision process 206 operates in accordance with User Configured parameters 208 which specify when and through which Network the data is to be transmitted.”

Thus, Doviak teaches and describes opening a second connection before evaluating the parameter to make a decision to use the second connection as the active connection.

Applicant's argument: Claim 3

Claim 3 refers to a method in which the second connection is opened prior to establishing the information exchange protocol, namely the same information exchanged protocol that is used for the first connection and then later for the second connection when the second connection is selected as the active connection."

"Doviak teaches that the second connection is opened after communication on the first connection and hence after the information exchange protocol for the first connection is established."

Examiner's response:

Doviak teaches at col. 34, line 19-26, "The Network Availability 210 (see also FIG. 30) is a function which periodically interrogates each installed Network Interface 214 in the Router 200 and may determine if the Network Interface 214 is installed; if the Network Interface 214 is properly configured and functioning properly; if the Network Interface 214 is connected to the Network, on-line, and available for sending/receiving messages; and if the Network Interface 214 is in good health."

Applicant's argument: Claims 39 and 41

"However, nothing in this passage mentions retaining outgoing information until reception is acknowledged or monitoring a buffer to determine whether to transmit additional outgoing information."

Examiner's response:

Doviak teaches at col. 30, line 60- col. 31, line 21, By way of non-limiting examples, the mobile device 52 may comprise a portable or laptop computer; a

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computer having an embedded Router 200; a terminal or terminal emulator; a data gathering device (e.g., a SCADA system or remote telemetry system for obtaining data from a remote location for forwarding to a central location for processing); a card-swipe reader device (e.g., credit/debit/bank cards) for use in a mobile billing application, such as a taxi or mobile food cart; a smart-card reader; a logging device, such as those used in a package delivery system or fleet; a device for reading bar codes (e.g., for inventory control); and a remote application with data to send or to receive, from a fixed application or device (e.g., remote diagnostic tool). The above-noted applications are provided merely for exemplary purpose, and other applications and mobile devices 52 may be used with the Router 200 of the present invention.

Typically the device or Application 52 sends and receives data using a variety of protocols (e.g., Internet Protocol (IP)/transparent (via MDC 54)/ack-nack, etc.). The use of a variety of protocols provides for open transport of data throughout many networks, and in particular, networks which support open standards such as IP. However, many proprietary networks which require interface and/or protocol translation remain in use. In the Router 200 of the present embodiment, the function of interfacing with networks and protocol translation may be performed by the Network Interfaces 214A-D."

Applicant's argument: Gopalakrishna

"Thus, Gopalakrishna does not teach the limitation of claim 10 among other things."

Examiner's response:

Gopalakrishna teaches at col. 6, line 39-44, "A field 226 stores packet sequence number information, while a field 228 stores the TLPDU size information. The optional field 226 is useful in reassembling the packets into a predetermined sequence, when more than one transport is used. The field 228 provides more information on the TLPDU size."

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351 (a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-7, 9, 19, 20, 22-25, 27-32, 38-45 and 48 are rejected under 35 U.S.C. 102(e) as being anticipated by Doviak et al. (hereinafter Doviak) (US 6, 198 , 920).

Referring to claim 1,

Doviak teaches a method (Fig. 30) comprising:

at a device (Fig. 30, col. 38, line 19-31, "The Router 200 of the present invention may be used inside a mobile vehicle, or carried by a person in a portable application. Further, the Router 200 may be provided as an external component connected to a portable device (e.g., a laptop computer) or may be implemented within the portable device, such that the portable device and the Router 200 are provided as one integrated unit. Further, the Router 200 may be used in conjunction with, or integrated into

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measuring and testing equipment, and transmission equipment. Such a remote device may be needed for very remote monitoring applications, such as wildlife studies, etc., necessitating the use of multiple Networks.”), opening a first connection to a server; establishing an information exchange protocol for communicating on the first connection (col. 34, line 19-55);

at a device(Fig. 30, col. 38, line 19-31, “The Router 200 of the present invention may be used inside a mobile vehicle, or carried by a person in a portable application. Further, the Router 200 may be provided as an external component connected to a portable device (e.g., a laptop computer) or may be implemented within the portable device, such that the portable device and the Router 200 are provided as one integrated unit. Further, the Router 200 may be used in conjunction with, or integrated into measuring and testing equipment, and transmission equipment. Such a remote device may be needed for very remote monitoring applications, such as wildlife studies, etc., necessitating the use of multiple Networks., opening a second connection to the server (col. 34, line 19-55);

selecting, from connections including the second connection, a connection to be an active connection (col. 34, line 56 through col. 35, line 43); and

communicating information via the active connection using the information exchange protocol established for the first connection. (col. 36 , line 26-34).

Referring to claim 2,

Doviak teaches the method of claim 1 further comprising communicating information configured for the information exchange protocol using the first connection

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as the active connection prior to selecting the second connection as the active connection. (col. 36 , line 26-34, "The process of the Decision process 206 checking the User Configuration 208 and the Network Availability 210 continues indefinitely, and is described in detail in FIGS. 33-36. Generally, the process helps to guarantee that the mobile user always has access to a Network for sending and receiving data. This process also allows what is known now as "seamless roaming". This means that the mobile user can move between Networks and continue to have reliable data transmission on the different Networks.").

Referring to claim 3,

Doviak teaches the method of claim 1 in which the second connection is opened prior to establishing the information exchange protocol. (col. 36 , line 26-34, "The process of the Decision process 206 checking the User Configuration 208 and the Network Availability 210 continues indefinitely, and is described in detail in FIGS. 33-36. Generally, the process helps to guarantee that the mobile user always has access to a Network for sending and receiving data. This process also allows what is known now as "seamless roaming". This means that the mobile user can move between Networks and continue to have reliable data transmission on the different Networks.").

Referring to claim 4,

Doviak teaches the method of claim 1 in which a single one of the connections is selected as the active connection. (col. 36 , line 26-34, "The process of the Decision process 206 checking the User Configuration 208 and the Network Availability 210 continues indefinitely, and is described in detail in FIGS. 33-36. Generally, the process

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helps to guarantee that the mobile user always has access to a Network for sending and receiving data. This process also allows what is known now as "seamless roaming". This means that the mobile user can move between Networks and continue to have reliable data transmission on the different Networks.").

Referring to claim 5,

Doviak teaches the method of claim 1 in which two or more connections are selected as the active connection.(col. 34, line 37-55, "The Network Availability 210 of each Network Interface 214 is determined in a manner specific to the particular interfaced Network. For example, if the Network is CDPD, the Network Availability 210 interrogates the network to determine if the Network Interface 214 is currently registered with the Network, and therefore active. Also, in the CDPD network, the Network Availability 214 determines if the Received Signal Strength Indication (RSSI) is sufficient to transmit relatively error-free data. For example, in the NovaTel CDPD Network Interface a RSSI of -100 dBm will provide for good data transmission qualities. Thus, if the Network Availability 210 function queries the NovaTel CDPD Network Interface for the RSSI, and the response is -110 dBm, then the signal is too weak for error-free transmission, and therefore cannot be used at this time. This information is passed to the Decision process 206 to determine if the "current Network" should remain the "current Network", and if not, to determine what the "next Network" should be.")

Referring to claim 6,

Doviak teaches the method of claim 1 in which the second connection includes a wireless connection(col. 34, line 36-55).

Referring to claim 7,

Doviak teaches a method (Fig. 30) comprising:

at a device (Fig. 30, col. 38, line 19-31, "The Router 200 of the present invention may be used inside a mobile vehicle, or carried by a person in a portable application. Further, the Router 200 may be provided as an external component connected to a portable device (e.g., a laptop computer) or may be implemented within the portable device, such that the portable device and the Router 200 are provided as one integrated unit. Further, the Router 200 may be used in conjunction with, or integrated into measuring and testing equipment, and transmission equipment. Such a remote device may be needed for very remote monitoring applications, such as wildlife studies, etc., necessitating the use of multiple Networks."), opening a first connection to a server; establishing an information exchange protocol for communicating on the first connection (col. 34, line 19-55);

at the device (Fig. 30, col. 38, line 19-31, "The Router 200 of the present invention may be used inside a mobile vehicle, or carried by a person in a portable application. Further, the Router 200 may be provided as an external component connected to a portable device (e.g., a laptop computer) or may be implemented within the portable device, such that the portable device and the Router 200 are provided as one integrated unit. Further, the Router 200 may be used in conjunction with, or integrated into measuring and testing equipment, and transmission equipment. Such a remote device may be needed for very remote monitoring applications, such as wildlife studies, etc.,

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necessitating the use of multiple Networks."), opening a second connection to the server (col. 34, line 19-55);

selecting from connections including the second connection, a connection to be an active connection (col. 34 through col. 35, line 43);

communicating information configured for the information exchange protocol that was established for the first connections using the active connection; (col. 36, line 26-34) and

monitoring the connections for a parameter selected from the group consisting of transmittal rate, latency, and cost of transmittal; and reselecting the active connection to optimize the parameter. (col. 35, line 13-43, "Other user configurable parameters include: the priority of each internal slot, (e.g., 1 to 6) where the slot with priority 1 is the default startup slot and Network; baud rate of each slot (a default rate may be set to 9600 bits per second, but may be configured to be any standard baud rate, divisible by 300, up to 115.2 kilo bits per second); cost per kilobyte per slot (e.g., \$0.xx per kilobyte where the least costly slot that is available and highest priority will be default); protocol per slot (e.g., none, Point to Point (PPP), Serial Line Internet Protocol (SLIP), Hayes "AT" commands, transparent); slot mode, for example, transparent, PSTN, cellular, IP, receive only; slot name or address or phone number; slot to be used for diagnostics (e.g., default may be set to slot 2); slot muting to be used (e.g., none, PL, DTMF, other); number of retry transmissions per Network Interface (per slot) before declaration of Network Interface failure (e.g., 0-10); if slot Network Interface needs to be configured before it can operate (e.g., y,n); slot to be used for remote display (e.g., default may be

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set to slot 2); slot to be used for Device or Application 52 (e.g., a connection to a mobile computer; default is slot 1); and frequency at which Network Availability 210 is checked (e.g., default may be set to five seconds). Other user configurable parameters may be introduced and configured as necessary.")

Referring to claim 9,

Doviak teaches the method of claim 1, 4, or 6 in which the information includes a command that is effected by a module on the server. (col. 30, line 35-48).

Referring to claims 19 and 20,

Claims 19 and 20 are claims to an apparatus comprising a processor and software configured to cause the processor to carry out the method of claim 7. Therefore claims 19 and 20 are rejected for the reasons set forth for claims 19 and 20.

Referring to claim 22,

Claim 22 is a claim to the apparatus comprising a processor and software configured to cause the processor to carry out the method of claim 9. Therefore claim 22 is rejected for the reasons set forth for claim 9.

Referring to claim 23,

Claim 23 is a claim to an article comprising a machine-readable medium that stores machine-executable instructions, the instructions causing a machine to perform the method of claim 1. Therefore claim 23 is rejected for the reasons set forth for claim 1.

Referring to claim 24,

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Claim 24 is a claim to an article comprising a machine-readable medium that stores machine-executable instructions, the instructions causing a machine to perform the method of claim 4. Therefore claim 24 is rejected for the reasons set forth for claim 4.

Referring to claim 25,

Claim 24 is a claim to an article comprising a machine-readable medium that stores machine-executable instructions, the instructions causing a machine configuration of claim 20. Therefore claim 25 is rejected for the reasons set forth for claim 20.

Referring to claim 27,

Claim 27 is a claim to an article comprising a machine-readable medium that stores machine-executable instructions, the instructions causing a machine to perform the method of claim 9. Therefore claim 27 is rejected for the reasons set forth for claim 9.

Referring to claim 28,

Claim 28 is a claim to a system performing the method of claim 1. Therefore claim 28 is rejected for the reasons set forth for claim 1.

Referring to claim 29,

Claim 29 is a claim to a system performing the method of claim 6. Therefore claim 29 is rejected for the reasons set forth for claim 6.

Referring to claim 30,

Claim 30 is a claim to a system including the apparatus of claim 20. Therefore claim 30 is rejected for the reasons set forth for claim 20.

Referring to claims 31 and 32,

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Doviak teaches the system of claim 28 in which the device is further configured to select, from the connections, a connection to be a passive connection, and system of claim 31 in which the passive connection is maintained while at least some of the information is communicated using the active connection. (col. 36, line 6-36).

Referring to claim 38,

Doviak teaches the method of claim 1 in which the device detects its own geographic position and compares its geographic position to the range of one of the connections. (col. 36, line 26-34, "The process of the Decision process 206 checking the User Configuration 208 and the Network Availability 210 continues indefinitely, and is described in detail in FIGS. 33-36. Generally, the process helps to guarantee that the mobile user always has access to a Network for sending and receiving data. This process also allows what is known now as "seamless roaming". This means that the mobile user can move between Networks and continue to have reliable data transmission on the different Networks.")

Referring to claims 39 and 40,

Doviak teaches the method of claim 1 in which the device retains outgoing information until reception is acknowledged, and the method of claim 39 in which the device monitors a buffer that retains outgoing information to determine whether to transmit additional outgoing information.(col. 31, line 9-19)

Referring to claim 41,

Doviak teaches the method of claim 1 in which the device implements

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software-based application sockets to connect application input/output streams to the server. (Figs. 33-36).

Referring to claims 42, 43 and 44,

Doviak teaches the method of claim 7 in which the parameter comprises transmittal rate, and the method of claim 7 in which the parameter comprises latency, and the method of claim 7 in which the parameter comprises cost of transmittal. (col. 35, line 13-43).

Referring to claim 45,

Doviak teaches a method (Fig. 30) comprising:

at a device (Fig. 30, col. 38, line 19-31) , opening a first connection to a server; establishing an information exchange protocol for communicating on the first connection (col. 34, line 19-55);

at a device (Fig. 30, col. 38, line 19-31), opening a second connection to the server; selecting, from connections including the second connection (col. 34, line 56 through col. 35, line 43), a connection to be an active connection and another connection to be a passive connection (col. 36, line 6-36); and

communicating information using the active connection, wherein the same network. Security, and compression protocols and parameters are used for information exchange as for the first connections while maintaining the passive connection. (col. 39, line 26-65, col. 35, line 13-43, col. 33, line 57-col. 34, line 3).

Referring to claim 48,

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Doviak teaches the method of claim 45 that comprises monitoring the connections for a parameter selected from the group consisting of signal strength, transmittal rate, latency, cost of transmittal, and connection integrity. (col. 35, line 13-43)

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8, 10, 21, 26, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doviak et al. (hereinafter Doviak) (US 6, 198 , 920) in view of Gopalakrishna (US 6,614, 808).

Referring to claims 8 and 10,

Keeping in mind the teachings of Doviak as stated above, Doviak fails to teach the method of claim 1 in which the information is communicated in packets that include aggregated information for more than one application, and the method of claim 8 in which, the extent of aggregation for each application in the packets that include aggregated information for more than one application is dependent on an indicator of priority for information exchange associated with each application.

Gopalakrishna teaches the information is communicated in packets that include aggregated information for more than one application, and (col. 5, line 40-47, FIG. 2 shows interactions among various layers associated with the source system 110 and the target system 111 in generating aggregated packets and in demultiplexing the aggregated packets. A plurality of client sessions 118 and 119 send a plurality of session data packets which are combined into a session layer aggregated packet 120. The client sessions 118 and 119 can be database sessions communicating queries to and responses from a database server.") the method of claim 8 in which, the extent of aggregation for each application in the packets that include aggregated information for more than one application is dependent on an indicator of priority for information exchange associated with each application. (col. 6, line 34-44, "An exemplary data structure of the TLPDU 210 is shown in more detail in FIG. 4. The TLPDU 210 contains a field 222 for storing one or more flags such as a request type flag. Also, the TLPDU 210 contains a field 224 for storing a session number or client identifier. A field 226 stores packet sequence number information, while a field 228 stores the TLPDU size information. The optional field 226 is useful in reassembling the packets into a predetermined sequence, when more than one transport is used. The field 228 provides more information on the TLPDU size.")

Therefore, it would have been obvious to one of ordinary skill in this art at the time the invention was made to implement the teachings of Gopalakrishna into the system of Doviak because, as stated by Gopalakrishna, "The protocols discussed above significantly reduce the number of operating system communication calls.

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Correspondingly, the number of communication calls necessary to send and receive a given number of network packets between the source system (concentrator) and the target system (server) processes across the network is also reduced due to packet aggregation. The resource requirements of the server process will be reduced proportional to amount of average aggregation measured. The reduced number of communication calls needed in the Server will improve the scalability of the server in a client-server architecture. For small sized packets, packet aggregation helps improving the network bandwidth due to the reduced packet/frame header overhead at the transport or lower layers. Moreover, in networks with large MTU (Maximum Transmission Unit) aggregating small packets reduce communication latency.”

Referring to claim 21,

Claim 21 is a claim to the apparatus comprising a processor and software configured to cause the processor to carry out the method of claim 8. Therefore claim 21 is rejected for the reasons set forth for claim 8.

Referring to claim 26,

Claim 26 is a claim to an article comprising a machine-readable medium that stores machine-executable instructions, the instructions causing a machine configuration of claim 21. Therefore claim 26 is rejected for the reasons set forth for claim 21.

Referring to claim 46,

Keeping in mind the teachings of Doviak as stated above, Doviak fails to teach the method of claim 45 in which the information is communicated in packets that include aggregated information for more than one application.

Gopalakrishna teaches the information is communicated in packets that include aggregated information for more than one application, and (col. 5, line 40-47, FIG. 2 shows interactions among various layers associated with the source system 110 and the target system 111 in generating aggregated packets and in demultiplexing the aggregated packets. A plurality of client sessions 118 and 119 send a plurality of session data packets which are combined into a session layer aggregated packet 120. The client sessions 118 and 119 can be database sessions communicating queries to and responses from a database server.") the method of claim 8 in which, the extent of aggregation for each application in the packets that include aggregated information for more than one application is dependent on an indicator of priority for information exchange associated with each application. (col. 6, line 34-44, "An exemplary data structure of the TLPDU 210 is shown in more detail in FIG. 4. The TLPDU 210 contains a field 222 for storing one or more flags such as a request type flag. Also, the TLPDU 210 contains a field 224 for storing a session number or client identifier. A field 226 stores packet sequence number information, while a field 228 stores the TLPDU size information. The optional field 226 is useful in reassembling the packets into a predetermined sequence, when more than one transport is used. The field 228 provides more information on the TLPDU size.")

Therefore, it would have been obvious to one of ordinary skill in this art at the time the invention was made to implement the teachings of Gopalakrishna into the system of Doviak because, as stated by Gopalakrishna, "The protocols discussed above significantly reduce the number of operating system communication calls.

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Correspondingly, the number of communication calls necessary to send and receive a given number of network packets between the source system (concentrator) and the target system (server) processes across the network is also reduced due to packet aggregation. The resource requirements of the server process will be reduced proportional to amount of average aggregation measured. The reduced number of communication calls needed in the Server will improve the scalability of the server in a client-server architecture. For small sized packets, packet aggregation helps improving the network bandwidth due to the reduced packet/frame header overhead at the transport or lower layers. Moreover, in networks with large MTU (Maximum Transmission Unit) aggregating small packets reduce communication latency."

7. Claims 11 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doviak et al. (hereinafter Doviak) (US 6, 198, 920) in view of Inoue et al. (hereinafter Inoue) (US 2005/0132049 A1).

Referring to claim 11,

Doviak teaches a method (Fig. 30) comprising:

at a device (Fig. 30, col. 38, line 19-31, "The Router 200 of the present invention may be used inside a mobile vehicle, or carried by a person in a portable application. Further, the Router 200 may be provided as an external component connected to a portable device (e.g., a laptop computer) or may be implemented within the portable device, such that the portable device and the Router 200 are provided as one integrated unit. Further, the Router 200 may be used in conjunction with, or integrated into measuring and testing equipment, and transmission equipment. Such a remote device

may be needed for very remote monitoring applications, such as wildlife studies, etc., necessitating the use of multiple Networks.”), opening a first connection to a server; establishing an information exchange protocol for communicating on the first connection (col. 34, line 19-55);

at the device (Fig. 30, col. 38, line 19-31, “The Router 200 of the present invention may be used inside a mobile vehicle, or carried by a person in a portable application. Further, the Router 200 may be provided as an external component connected to a portable device (e.g., a laptop computer) or may be implemented within the portable device, such that the portable device and the Router 200 are provided as one integrated unit. Further, the Router 200 may be used in conjunction with, or integrated into measuring and testing equipment, and transmission equipment. Such a remote device may be needed for very remote monitoring applications, such as wildlife studies, etc., necessitating the use of multiple Networks.”), opening a second connection to the server (col. 34, line 19-55);

selecting from connections including the second connection, a connection to be an active connection (col. 34 through col. 35, line 43);

communicating information configured for the information exchange protocol that was established for the first connections using the active connection; (col. 36, line 26-34).

Doviak fails to teach the information comprising a command causes the server to contact a remote system, receive a reply from the remote system, and effect a response without transmitting the reply to the device.

Inoue teaches the information comprising a command causes the server to contact a remote system, receive a reply from the remote system, and effect a response without transmitting the reply to the device. (Abstract; storing them in the cache server cache until requested by client).

Therefore it would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Doviak and Inoue because they both deal with network communications between a client and server. Furthermore, the teaching of Inoue to contact a remote system, receive a reply from the remote system, and effect a response without transmitting the reply to the device would result in a more rapid response to future requests by caching material that it is anticipated will be requested in the immediate future.

Referring to claim 47,

Doviak teaches the method of claim 45 in which the information comprises a command for a module on the server (col. 30, line 35-48).; and fails to teach the method comprises effecting the command by contacting a remote server, receiving a reply from the remote server and effecting a response without transmitting the reply to the device.

Inoue teaches the information comprising a command causes the server to contact a remote system, receive a reply from the remote system, and effect a response without transmitting the reply to the device. (Abstract; storing them in the cache server cache until requested by client).

Therefore it would have been obvious to one of ordinary skill in this art at the time the invention was made to combine the teaching of Doviak and Inoue because they

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both deal with network communications between a client and server. Furthermore, the teaching of Inoue to contact a remote system, receive a reply from the remote system, and effect a response without transmitting the reply to the device would result in a more rapid response to future requests by caching material that it is anticipated will be requested in the immediate future.

Conclusion

Examiner's note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashok B. Patel whose telephone number is (571) 272-3972. The examiner can normally be reached on 6:30 am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan A. Flynn can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abp

NATHAN J. FLYNN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800